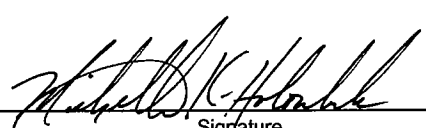


| PRE-APPEAL BRIEF REQUEST FOR REVIEW | | Docket Number (Optional) |
|---|--|-----------------------------|
| <div style="border-bottom: 1px solid black; padding-bottom: 5px;">I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">on _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">Signature _____</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">Typed or printed name _____</div> | | 1857.2140000 |
| <div style="border-bottom: 1px solid black; padding-bottom: 5px;">Application Number</div> 10/780,877 | | Filed February 19, 2004 |
| <div style="border-bottom: 1px solid black; padding-bottom: 5px;">First Named Inventor</div> Peter Kochersperger | | |
| <div style="border-bottom: 1px solid black; padding-bottom: 5px;">Art Unit</div> 2822 | | Examiner Duong, Khanh B. |
| <p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <div style="margin-top: 20px;"><p>I am the</p><div style="display: flex; justify-content: space-between;"><div style="width: 45%;"><p><input type="checkbox"/> applicant/inventor.</p><p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p><p><input type="checkbox"/> attorney or agent of record. Registration number _____</p><p><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 <u>54,179</u></p></div><div style="width: 45%; text-align: center;"><div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div>Signature Michelle K. Holoubek, Reg. No. 54,179 Typed or printed name (202) 371-2600 Telephone number <u>2/4/08</u> Date</div></div></div> | | |

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Peter Kochersperger

Appl. No.: 10/780,877

Filed: February 19, 2004

For: **Overlay Correction by Reducing
Wafer Slipping After Alignment**

Confirmation No.: 1990

Art Unit: 2822

Examiner: Khanh B. Duong

Atty. Docket: 1857.2140000

Arguments to Accompany the Pre-Appeal Brief Request for Review

Mail Stop AF

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant hereby submits the following Arguments, in five (5) or less total pages, as attachment to the Pre-Appeal Brief Request for Review (Form PTO/SB/33). A Notice of Appeal is being concurrently filed.

Arguments

Applicant's arguments in the Amendment and Reply under 37 C.F.R. § 1.111 of August 20, 2007, filed in response to the Office Action that issued April 18, 2007, were not properly considered or responded to by the Examiner in the final Office Action issued November 2, 2007, ("Office Action"). In particular, the Examiner's response was legally and factually deficient because the Examiner failed to adequately show where the cited references teach or suggest "an expander coupled to the wafer chuck and configured to expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created," as recited by independent claim 12.

Regarding the rejections of claims 12-14 and 23, for a rejection to be legally adequate under 35 U.S.C. § 102, every claim limitation must be taught in a single reference. *Industries, Inc. v. Guardian Industries Corp.*, 75 F.3d 1558, 1566 (Fed. Cir. 1996). The absence of any

claimed element from the reference negates anticipation. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1574 (Fed. Cir. 1984).

The Examiner rejected independent claim 12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 4,744,550 to Oglesbee (hereinafter "Oglesbee"). In claim 12, Applicant specifically recites (emphasis added) "an expander coupled to the wafer chuck and configured to *expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created.*" Oglesbee does not teach this feature, and the Examiner's continued rejection based on 35 U.S.C. § 102(b) are therefore legally and factually deficient.

The Examiner asserts that column 2, lines 57-64 of Oglesbee discloses the above-quoted feature (Office Action, p. 2). However, this is not the case. This section of Oglesbee states, in its entirety:

"FIG. 1 is a perspective view of a conventional wafer holder, generally referred to be reference number 1, generally comprising a brace or bracket member 3, a flexible member 5, and a diced wafer having a plurality of electronic semiconductor devices 7 attached thereto. The brace or bracket member 3 is preferably configured like a ring to permit coverage therearound the flexible member 5."

This referenced description clearly does not describe anything relating to expansion of the flexible member (which the Examiner appears to correlate with a wafer chuck), much less expansion of the flexible member without a corresponding expansion of the diced wafer, such that an initial stress between the flexible member and the diced wafer is created.

Further, the Examiner admits that the flexible member and the diced wafer of Oglesbee are expanded simultaneously, which is different from the flexible member being expanded without a corresponding expansion of the diced wafer. *See*, Office Action, p. 2. The Examiner attempts to overcome this admission by stating on p. 3 of the Office Action, "However, Oglesbee

expressly shows in figs. 5 and 6 that at the very early stage of the simultaneous expanding process, the flexible wafer chuck 5 is the first to be expanded due to its flexibility while the rigid wafer 7 is not being substantially expanded" (emphasis in original). This statement by the Examiner is simply unfounded, and no support exists in Oglesbee for such a statement. First, the Examiner appears to suggest that Figures 5 and 6 of Oglesbee illustrate some time-related quality. Figure 5 illustrates the chuck and diced wafer prior to expansion; Figure 6 illustrates the chuck and diced wafer after expansion, in which both the chuck and the diced wafer have been expanded. Specific timing (e.g., "at the very early stage") of the flexible member expansion in relation to the diced wafer expansion cannot be gleaned simply from the Figures. Looking to the description supporting Figures 5 and 6, the corresponding text in col. 3, lines 39-51, in fact indicates that expansion of the diced wafer and the chuck is simultaneous. Specifically, col. 3, lines 44-48 of Oglesbee state, "Upon the pulling of the flexible member 5 into the groove 25, the flexible member 5 is expanded; thus similarly expanding the diced wafer having a plurality of electronic semiconductor devices 7 connected above."

The Examiner also states that "an initial stress must exist at an interface between the wafer 7 and the wafer chuck 5 before the wafer 7 starts to substantially expand." The Examiner provides no support for such a statement, and there is no indication in Oglesbee that a stress exists between the flexible member and the diced wafer. To the extent that some stress may exist between the flexible member and the diced wafer of Oglesbee so that the diced wafer does not easily detach from the flexible member, such a stress is not *created* by the expanding flexible member. Any initial stress present prior to expansion of the flexible member is irrelevant to a subsequent creation of stress by expansion.

Applicant also asserts that the system of Oglesbee could not function properly if the flexible member of Oglesbee expanded without a corresponding expansion of the diced wafer.

The purpose of the Oglesbee system is to spread apart the previously-exposed, diced wafer so that individual pieces of the diced wafer may be picked up for inspection. If the diced wafer did not expand as the flexible member expanded, the system of Oglesbee would be rendered unsuitable for its intended purpose.

For at least these reasons, Oglesbee neither teaches nor suggests "an expander coupled to the wafer chuck and configured to expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created," as recited in claim 12. Therefore, independent claim 12, and the claims that depend therefrom (including claims 13-14 and 23), are patentable over Oglesbee.

Claims 12-14 and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,375,176 to Getchel *et al.* (hereinafter, "Getchel"). As discussed above, claim 12 recites at least "an expander coupled to the wafer chuck and configured to *expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created*" (emphasis added). Getchel does not teach at least this feature, and the Examiner's continued rejections based on 35 U.S.C. § 102(b) are therefore legally and factually deficient.

The Examiner indicates that the heater in Getchel creates an initial stress between the chuck and a wafer. The Examiner references Figures 9A and 11A of Getchel as support. Such a characterization of Getchel is incorrect. Col. 14, lines 35-45 of Getchel provide two alternatives for the wafer/chuck interface of Fig. 9A. In one alternative, the chuck surface is a non-conductive material, such as ceramic. In this embodiment, thermal expansion of the chuck surface is inhibited, so that there is no expansion of the chuck surface relative to the wafer. In the other alternative, the wafer is coupled directly to the heater. In this embodiment, the wafer undergoes thermal expansion at the same time as the chuck. Fig. 11A further details this latter

embodiment, and col. 17, lines 59-61 of Getchel indicate that heater coils are used to heat both the chuck and the workpiece (e.g., wafer).

In either case, no stress is created between the wafer chuck and the wafer due to expansion of the wafer chuck without a corresponding expansion of the wafer. Therefore, Getchel neither teaches nor suggests "an expander coupled to the wafer chuck and configured to expand the wafer chuck without substantially expanding the wafer, such that an initial stress at an interface between the wafer and the wafer chuck is created," as recited in claim 12. Independent claim 12, and the claims that depend therefrom, (including claims 13-14 and 23), are patentable over Getchel.

Because neither Oglesbee nor Getchel describe each and every element recited in claim 12, the Examiner's rejections under 35 U.S.C. § 102(b) of claim 12, along with dependent claims 13-14 and 23, are both legally and factually unfounded. Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) over each of Oglesbee and Getchel.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

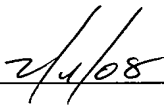
Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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